

end portions 127 thereof. A coiled spring 91 is interposed between the rear end portions 126 of the jaws 88 and 90 to urge the jaws apart, and a fastening device 97 and a clamping mechanism 96 similar to those seen in FIGS. 1-5, are interengaged between the forward end portions 127 of 5 the jaws to hold the jaws together against the bias of the spring 91. The fastening device 97 comprises a threaded fastener 128 which extends through an opening 130 in jaw 88, and is coupled to a U-shaped finger 95 that is secured to the inside of jaw 90. The fastener and finger are accompanied by a knob 132 which is attached to the exposed end of 10 the fastener 128, and is operable to impose an inward force against the jaw 88 to control the opening and closing of the coupling device.

Couplers 100 with which to mount the devices 10, are 15 secured to the coupling device 82 at the opposing sides of the jaw 90, and the lamps 86 are attached in turn to the devices 10 themselves, using additional couplers 102 on the split arm assemblies 1 thereof. In use, each lamp 86 can be oriented at any angular orientation desired, relative to the 20 coupling device 82, and therefore, relative to the support, so as to display the assembly in any manner desired.

There are many other variations and modifications that can be made in and to the invention. There are also many other applications of it. For example, the device may be used 25 as a fishing rod holder that is selectively positionable relative to the side of a vessel to which it is attached; or to provide a camera mount; or to provide a mount with which to hold a circuit board while it is being assembled, soldered 30 or maintained.

Sometimes two or more mounting devices may be combined to form a system with which to mount elongated objects such as fishing rods or skis on a wall, ceiling or like structure.

A mounting device with a single ball and socket joint, 35 may be employed in lieu of the described paired arrangement. In such a case, the head 22 or 24 of the same would form a first linkage forming member, and the split arm assembly 1 a second linkage forming member. Likewise, 40 means other than a nut and bolt may be employed as the fastening means, and means other than that shown may be employed as the clamping means. For example, vice-like clamps may be employed.

The arm sections need not be identically shaped. One may 45 be larger than the other, and the second may take the form of a finger which is hingedly secured to the first so as to bear against the head of a coupler that is interposed therebetween. Also, in still other versions of my invention, there may be three or more arm sections that bear against the head of a 50 coupler; and the fastening device and clamping mechanism may comprise a collet or the like which urges the arm sections together against the head of a coupler so as to compress and lock the arm sections onto the coupler.

I claim:

1. A mounting device for interposing along a line of juncture between a pair of relatively movable and relatively stationary objects, to support the relatively movable object on the relatively stationary object at a selected angular orientation of the line of juncture with respect to one of the 60 objects, comprising:

means for forming a first coupling member on a first of the objects and a base on a second of the objects at spaced first and second loci, respectively, adjacent opposite ends of the line of juncture, 65  
a split arm assembly comprising a pair of relatively rigid arm sections which are adapted to be operatively jux-

5 taposed to one another along the line of juncture between the spaced loci of the first coupling member and the base, and have pairs of corresponding first and second end portions thereof which are operatively opposed to one another across a plane coincident with the line of juncture, so as to be disposed adjacent the first coupling member and the base, respectively,

10 clamping means for squeezing the pair of arm sections together relatively crosswise the plane of the line of juncture,

15 means for producing a differential in the reaction of the respective pairs of first and second end portions of the arm sections to the squeezing action of the clamping means, so that when squeezed together, the pair of arm sections forms a bifurcated arm assembly that in a first position thereof, has its apex at the first locus of the first coupling member and is loosely engaged about the base at the second end portions thereof,

20 means forming a pair of operatively opposing first sockets in the first end portions of the respective arm sections having substantially smooth part spherical surfaces at the inner peripheries thereof which substantially coincide with a circle of revolution that has its center at the first locus of the first coupling member when the bifurcated arm assembly is engaged in the first position thereof about the first coupling member,

25 the first coupling member having a substantially smooth part spherical surface thereon which forms the outer periphery thereof and substantially coincides with the circle of revolution, so that the pair of first sockets and the first coupling member form a relatively rotatable ball and socket joint in the first position of the bifurcated arm assembly,

30 35 the clamping means being operable in the first position of the bifurcated arm assembly to squeeze the pair of arm sections further together relatively crosswise the plane of the line of juncture and to a second position of the bifurcated arm assembly in which the inner peripheral surfaces of the first sockets assume a disposition relatively radially within the circle of revolution, and the first coupling member being sufficiently radially compressible at the outer peripheral surface thereof that between the first and second positions of the bifurcated arm assembly, the inner peripheral surfaces of the first sockets can deform the surface of the first coupling member to interlock the bifurcated arm assembly with the first coupling member and vice versa at a selected angular orientation of the line of juncture with respect to the one object, and

40 45 50 means for producing a differential in the reaction of the respective pairs of first and second end portions of the arm sections to the further squeezing action of the clamping means, so that when squeezed further together into the second position of the bifurcated arm assembly, the pair of arm sections pivots relatively toward one another about the first coupling member to seize the base and rigidly interconnect the bifurcated arm assembly with the base at the selected angular orientation of the line of juncture with respect to the one object.

55 60 65 2. The mounting device according to claim 1 wherein the clamping means are releasable and when the clamping means are released, the pair of arm sections is reciprocable in relation to one another to a third position of the bifurcated arm assembly in which the pair of arm sections is sufficiently spaced apart about the first locus of the first coupling

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member that the first coupling member is detachable from the bifurcated arm assembly and vice versa.

3. The mounting device according to claim 2 wherein the base takes the form of a second coupling member having a substantially smooth part spherical outer peripheral surface 5 thereon, the second coupling member is also compressible radially thereof at the outer peripheral surface thereof, and the mounting device further comprises means forming a pair of operatively opposing second sockets in the second end portions of the pair of arm sections which have substantially 10 smooth part spherical surfaces at the inner peripheries thereof that are rotatably engageable with the second coupling member at the outer peripheral surface thereof in the respective positions of the bifurcated arm assembly lying between the third and first positions thereof inclusive, and 15 which progressively seize the second coupling member by compressing and deforming the outer peripheral surface thereof to interlock the bifurcated arm assembly with the second coupling member when the pair of arm sections is squeezed together in the direction of the second position of 20 the bifurcated arm assembly from the first position thereof

4. The mounting device according to claim 1 wherein the base and arm sections are adapted for rotation of the bifurcated arm assembly about the base and vice versa at the second locus of the base. 25

5. A mounting device for interposing along a line of juncture between a pair of relatively movable and relatively stationary objects, to support the relatively movable object on the relatively stationary object at a selected angular orientation of the line of juncture with respect to one of the 30 objects, comprising:

means for forming a first coupling member on a first of the objects and a base on a second of the objects at spaced first and second loci, respectively, adjacent opposite ends of the line of juncture, 35

a split arm assembly comprising a pair of elongated relatively rigid arm sections which are operatively juxtaposed to one another along the line of juncture between the spaced first and second loci of the first coupling member and the base, and have pairs of corresponding first and second end portions thereof that are operatively opposed to one another across a plane coincident with the line of juncture,

the first coupling member having a body with part spherical surfaces at the outer periphery thereof that are disposed on opposite sides of the plane of the line of juncture to substantially coincide with a first circle of revolution having its center at the first locus of the first coupling member, and also having pressure deformable material therein so that the body of the first coupling member can be squeezed between the surfaces thereof to less than the diameter of the first circle of revolution, means forming a pair of operatively opposing first sockets in the pair of first end portions of the respective arm sections, 45

means for applying initial clamping forces to the pair of arm sections to squeeze the pair of arm sections together relatively crosswise the plane of the line of juncture, 50

means for producing a differential in the reaction of the respective pairs of first and second end portions of the arm sections to the initial clamping forces so that when squeezed together, the pair of arm sections assumes a relatively transversely contracted disposition thereof 65 about the first coupling member and the base in which the pair of first sockets in the pair of first end portions

is operatively engaged about the outer peripheral surfaces of the first coupling member in substantial coincidence with the first circle of revolution, but the pair of second end portions is spaced apart from one another about the base to the extent that although the pair of arm sections forms a connection between the first coupling member and the base, the connection allows the pair of arm sections to be squeezed further together about the base,

the pair of first sockets being adapted to form a first ball and socket joint with the outer peripheral surfaces of the first coupling member when the pair of arm sections assumes the relatively transversely contracted disposition thereof about the first coupling member and the base, so that the first coupling member and the pair of arm sections can be pivoted in relation to one another at the first joint to position the line of juncture at a selected angular orientation with respect to the one object,

means for applying additional clamping forces to the pair of arm sections to squeeze the pair of arm sections further together relatively crosswise the plane of the line of juncture when the pair of arm sections is in the relatively transversely contracted disposition thereof about the first coupling member and the base, and

means for producing a differential in the reaction of the respective pairs of first and second end portions of the arm sections to the additional clamping forces so that when squeezed further together in the relatively transversely contracted disposition thereof, the pair of arm sections pivots in relation to one another about the first coupling member to reduce the space between the second end portions of the respective arm sections about the base while the pair of first sockets engages the outer peripheral surfaces of the body of the first coupling member to squeeze the body therebetween and interlock the pair of arm sections with the first coupling member to rigidify the connection between the first coupling member and the base at the selected angular orientation of the line of juncture with respect to the one object.

6. The mounting device according to claim 5 wherein the first coupling member is formed of nitrile rubber material at the surface thereof.

45 7. The mounting device according to claim 5 wherein the pair of arm sections is adapted to extend rectilinearly between the spaced first and second loci of the first coupling member and the base.

8. The mounting device according to claim 5 wherein the means for forming the first coupling member and the base are elements physically separate and distinct from the objects themselves but attachable thereto.

9. The mounting device according to claim 5 wherein the split arm assembly is physically separate and distinct from the means for forming each of the first coupling member and the base.

10. The mounting device according to claim 5 wherein the split arm assembly is physically separate and distinct from the base.

60 11. The mounting device according to claim 5 wherein the pressure deformable material is resilient and the means for applying additional clamping forces to the pair of arms sections are releasable relatively crosswise the plane of the line of juncture to restore the first joint so that the pair of arm sections and the first coupling member can be pivoted in relation to one another to position the line of juncture at a different angular orientation with respect to the one object.

12. The mounting device according to claim 5 wherein the base has attachment means thereon for forming the connection between the first coupling member and the base, and the arm sections are operatively juxtaposed about the plane of the line of juncture so that when the pair of arms sections is 5 squeezed together by the initial clamping forces to assume the relatively transversely contracted disposition thereof, the second end portions of the pair of arm sections are reciprocated in relation to one another about the base to first positions thereof in which the pair of second end portions is 10 mutually opposed to one another across the plane and the attachment means form a connection between the first coupling member and the base, but the pair of second end portions is sufficiently spaced apart from one another in the connection that the connection allows the pair of arm 15 sections to be squeezed further together about the base.

13. The mounting device according to claim 12 wherein the attachment means are operatively interposed between the pair of second end portions in the connection but adapted so that the respective second end portions of the arm sections 20 are spaced apart from the attachment means when the second end portions assume the first positions thereof in the relative reciprocation thereof, and the device further comprises means operatively interposed between the attachment means and the respective second end portions to loosely 25 interconnect the attachment means with the pair of second end portions and vice versa when the second end portions assume the first positions thereof in the relative reciprocation thereof.

14. The mounting device according to claim 13 wherein 30 the attachment means include a second coupling member having a body with part spherical surfaces at the outer periphery thereof that are disposed on opposite sides of the plane of the line of juncture to substantially coincide with a second circle of revolution having its center at a point 35 between the first positions of the second end portions of the arm sections in the relative reciprocation thereof, and the device further comprises means forming a pair of operatively opposing second sockets in the pair of second end portions of the respective arm sections, which engage about 40 the outer peripheral surfaces of the second coupling member in a third circle of revolution concentric with the second circle of revolution but having a greater diameter than the second circle of revolution so that when the second end portions of the arm sections assume the first positions 45 thereof in the relative reciprocation thereof, the body of the second coupling member and the respective second end portions of the arm sections are loosely interconnected with one another but spaced apart from one another by the differential between the diameters of the second and third 50 circles of revolution.

15. The mounting device according to claim 14 wherein the body of the second coupling member has pressure deformable material therein so that the body of the second coupling member can be squeezed between the surfaces 55 thereof to less than the diameter of the second circle of revolution, and the arm sections are operatively juxtaposed about the plane of the line of juncture so that when the pair of arm sections is squeezed further together by the additional clamping forces, the second end portions of the pair of arm 60 sections are reciprocated in relation to one another about the base to second positions thereof mutually opposed to one another across the plane of the line of juncture and in which the pair of second sockets forms a second ball and socket 65 joint with the outer peripheral surfaces of the second coupling member, so that the second coupling member and the pair of arm sections can be pivoted in relation to one another

at the second joint to also position the line of juncture at a selected angular orientation with respect to the other object if desired, and then to third positions thereof mutually opposed to one another across the plane of the line of juncture in which the pair of second sockets engages the outer peripheral surfaces of the body of the second coupling member to squeeze the body therebetween and interlock the pair of arm sections with the second coupling member to rigidify the connection between the respective first and second coupling members at the selected angular orientation of the line of juncture with respect to each of the objects.

16. The mounting device according to claim 15 wherein the pressure deformable material in the bodies of the respective first and second coupling members is resilient and the means for applying additional clamping forces to the pair of arm sections are releasable relatively crosswise the plane of the line of juncture to restore the first and second joints so that the pair of arm sections can be pivoted in relation to the respective first and second coupling members and vice versa, to position the line of juncture at different angular orientations with respect to the one and/or the other objects.

17. The mounting device according to claim 16 wherein the differential producing means include yieldable biasing means and the space between the first and second loci of the first coupling member and the base respectively is of such length that when the second coupling member is detached from the split arm assembly and vice versa, the pair of arm sections can be pinched together against the bias of the biasing means to separate the pair of first sockets from one another to the extent that the first coupling member can be detached from the pair of arm sections and vice versa.

18. The mounting device according to claim 5 wherein the means for producing a differential in the reaction of the respective pairs of first and second end portions of the arm sections to the initial clamping forces include means operable to generate a lop-sided effect in the application of the initial clamping forces to the respective pairs of first and second end portions of the arm sections when the pair of arm sections is squeezed together to assume the relatively transversely contracted disposition thereof.

19. The mounting device according to claim 5 wherein the base has attachment means thereon for forming the connection between the first coupling member and the base, and the attachment means and the first coupling member have means operatively interposed therebetween to generate a lop-sided effect in the application of the initial clamping forces to the respective pairs of first and second end portions of the arm sections when the pair of arm sections is squeezed together to assume the relatively transversely contracted disposition thereof.

20. The mounting device according to claim 19 wherein the attachment means include a second coupling member having a body with part spherical surfaces at the outer periphery thereof that are disposed on opposite sides of the plane of the line of juncture to substantially coincide with a second circle of revolution having its center at a point interposed between the second end portions of the arm sections when the pair of arm sections is squeezed together to assume the relatively transversely contracted disposition thereof, the first and second circles of revolution have substantially equal diameters, and the means for generating a lop-sided effect in the application of the initial clamping forces to the respective first and second end portions of the arm sections include yieldable biasing means disposed to oppose the application of the initial clamping forces to the second end portions of the respective arm sections.

21. The mounting device according to claim 20 wherein the yieldable biasing means are interposed across the plane of the line of juncture between the first and second coupling members.

22. The mounting device according to claim 21 wherein the initial clamping forces are applied to the pair of arm sections along a line interposed across the plane of the line of juncture between the yieldable biasing means and the first coupling member.

23. The mounting device according to claim 22 wherein the yieldable biasing means take the form of a coiled spring which is caged between the pair of arm sections along a line interposed across the plane of the line of juncture substantially parallel to the line of application of the initial clamping forces.

24. The mounting device according to claim 20 wherein the arm sections are operatively juxtaposed about the plane of the line of juncture so that when the pair of arm sections is squeezed together by the initial clamping forces, the second end portions of the pair of arm sections are reciprocated against the bias of the yieldable biasing means to positions mutually opposed to one another across the plane and in which the second coupling member forms a connection between the first coupling member and the base, but the pair of second end portions is sufficiently spaced apart from one another in the connection that the connection allows the pair of arm sections to be squeezed further together about the base.

25. The mounting device according to claim 20 wherein the space between the first and second loci of the first coupling member and the base respectively, is of such length that when the second coupling member is detached from the split arm assembly and vice versa, the pair of arm sections can be pinched together against the bias of the biasing means to separate the first end portions of the arm sections from one another to the extent that the first coupling member can be detached from the pair of arm sections and vice versa.

26. The mounting device according to claim 5 wherein the pressure deformable material renders the body of the first coupling member radially compressible at the outer peripheral surfaces thereof.

27. The mounting device according to claim 5 wherein the first sockets have surfaces at the inner peripheries thereof which are adapted to form the first ball and socket joint with the outer peripheral surfaces of the first coupling member when the pair of arm sections assumes the relatively transversely contracted disposition thereof about the first coupling member and the base.

28. The mounting device according to claim 27 wherein the pressure deformable material renders the body of the first coupling member radially compressible at the outer peripheral surfaces thereof, and the inner peripheral surfaces of the first sockets are part spherical and adapted to substantially coincide with the first circle of revolution when the pair of arm sections assumes the relatively transversely contracted disposition thereof about the first coupling member and the base so that the first joint is formed between the respective inner and outer peripheral surfaces of the first sockets and the first coupling member, and then to compress the body of the first coupling member radially thereof at the outer peripheral surfaces thereof when the pair of arm sections is squeezed further together in the relatively transversely contracted disposition thereof to interlock the pair of arm sections with the first coupling member and rigidify the connection between the first coupling member and the base at the selected angular orientation of the line of juncture with respect to the one object.

29. The mounting device according to claim 5 wherein the respective means for applying the initial clamping forces and the additional clamping forces to the pair of arm sections include a pin and hole fastening device for fastening the pair

of arm sections together relatively crosswise the plane of the line of juncture, and a clamping mechanism on the fastening device for applying clamping forces to the pair of arm sections through the fastening device.

5     **30.** A mounting device for interposing along a line of juncture between a pair of relatively movable and relatively stationary objects, to support the relatively movable object on the relatively stationary object at varying angular orientations of the line of juncture with respect to one of the objects, comprising:

10     means for forming a first coupling member on a first of the objects and a base on a second of the objects at spaced first and second loci, respectively, adjacent opposite ends of the line of juncture,

15     a split arm assembly comprising a pair of relatively rigid arm sections which are adapted to be operatively juxtaposed to one another along the line of juncture between the spaced first and second loci of the first coupling member and the base, and have faces thereon which are operatively opposed to one another across a plane coincident with the line of juncture,

20     releasable clamping means for reciprocating the pair of arm sections in relation to one another relatively crosswise the plane of the line of juncture to form the split arm assembly into a bifurcated arm assembly which has its apex at the second locus of the base and is engaged about the first coupling member,

25     means forming a pair of operatively opposing first sockets in the faces of the respective arm sections having substantially smooth part spherical surfaces at the inner peripheries thereof which substantially coincide with a circle of revolution that has its center at the first locus of the first coupling member when the bifurcated arm assembly is engaged in a first position thereof about the first coupling member,

30     the first coupling member having a substantially smooth part spherical surface thereon which forms the outer periphery thereof and substantially coincides with the circle of revolution, so that the pair of first sockets and the first coupling member form a relatively rotatable ball and socket joint in the first position of the bifurcated arm assembly,

35     the clamping means being operable in the first position of the bifurcated arm assembly to reciprocate the pair of arm sections in relation to one another to a second position of the bifurcated arm assembly in which the first sockets assume a disposition relatively radially within the circle of revolution, and the first coupling member being sufficiently radially compressible at the outer peripheral surface thereof that between the first and second positions of the bifurcated arm assembly, the inner peripheral surfaces of the pair of first sockets can deform the surface of the first coupling member to interlock the bifurcated arm assembly with the first coupling member and vice versa, but

40     the inner peripheral surfaces of the first sockets also being substantially smooth over sufficient arcuate extent circumferentially of the outer peripheral surface of the first coupling member and the first coupling member being sufficiently resilient at the surface thereof, that when the clamping means are released, the pair of first sockets and the first coupling member reform a relatively rotatable ball and socket joint at the first position of the bifurcated arm assembly, so that the bifurcated arm assembly can be rotated about the first coupling member to vary the angular orientation of the line of juncture with respect to the first coupling member,

and wherein when the clamping means are released, the pair of arm sections are reciprocable in relation to one another to a third position of the bifurcated arm assembly in which the faces of the pair of arm sections are sufficiently spaced apart about the first locus of the first coupling member that the first coupling member is detachable from the bifurcated arm assembly and vice versa,<sup>5</sup>

and the base takes the form of a second coupling member having a substantially smooth part spherical surface thereon which forms the outer periphery thereof, the second coupling member is also compressible radially thereof at the outer peripheral surface thereof, and the mounting device further comprises means forming a pair of operatively opposing second sockets in the faces of the respective arm sections which have substantially smooth part spherical surfaces at the inner peripheries thereof that are rotatably engageable with the second coupling member at the outer peripheral surface thereof in the respective positions of the bifurcated arm assembly lying between the third and first positions thereof inclusive, and which progressively seize the second coupling member by compressing and deforming the surface thereof to interlock the bifurcated arm assembly with the second coupling member when the pair of arm sections are reciprocated in relation to one another in the direction of the second position of the bifurcated arm assembly from the first position thereof.

**31.** The mounting device according to claim **30** wherein the releasable clamping means include yieldable biasing means operable to space the pair of arm sections from one another at the faces thereof relatively crosswise the plane of the line of juncture, and a releasable clamping mechanism operable against the bias of the yieldable biasing means to reciprocate the pair of arm sections relatively toward one another at the faces of the arm sections, the yieldable biasing means and the clamping mechanism being engaged with the pair of arm sections in the space between the first and second loci of the first coupling member and the base, respectively, to form the split arm assembly into a bifurcated arm assembly which has its apex at the second locus of the base when the pair of arm sections is reciprocated relatively toward one another at the faces thereof.<sup>30</sup>

**32.** The mounting device according to claim **31** wherein the faces of the respective arm sections have recesses therein between the first and second loci of the first coupling member and the base, and the yieldable biasing means take the form of a coiled spring which is caged between the respective arm sections at the recesses in the faces thereof<sup>45</sup>

**33.** The mounting device according to claim **32** wherein the space between the first and second loci of the first and second coupling members is of such length that when the first coupling member is detached from the bifurcated arm assembly and vice versa, the arm sections can be pinched together against the bias of the spring to separate the pair of second sockets from one another to the extent that the second coupling member can be detached from the pair of arm sections and vice versa.<sup>50</sup>

**34.** The mounting device according to claim **32** wherein the arm sections have a pair of mutually opposing openings therein at the bottoms of the recesses, and the clamping mechanism takes the form of an elongated bolt which is passed through the pair of openings and has a flange on one end portion thereof and threading on the other end portion thereof, and a knob which is threadedly engaged with the threading on the other end portion of the bolt and cooperable with the flange on the bolt to clamp the pair of arm sections therebetween.<sup>60</sup>

35. A mounting device for interposing along a line of juncture between a pair of relatively movable and relatively stationary objects, to support the relatively movable object on the relatively stationary object at varying angular orientations of the line of juncture with respect to one of the objects, comprising:

means for forming a first coupling member on a first of the objects and a base on a second of the objects at spaced first and second loci, respectively adjacent opposite ends of the line of juncture,

a split arm assembly comprising a pair of relatively rigid arm sections which are adapted to be operatively juxtaposed to one another along the line of juncture between the spaced first and second loci of the first coupling member and the base, and have faces thereon which are operatively opposed to one another across a plane coincident with the line of juncture,

releasable clamping means for reciprocating the pair of arm sections in relation to one another relatively cross-wise the plane of the line of juncture to form the split arm assembly into a bifurcated arm assembly which has its apex at the second locus of the base and is engaged about the first coupling member,

means forming a pair of operatively opposing first sockets in the faces of the respective arm sections having substantially smooth part spherical surfaces at the inner peripheries thereof which substantially coincide with a circle of revolution that has its center at the first locus of the first coupling member when the bifurcated arm assembly is engaged in a first position thereof about the first coupling member,

the first coupling member having a substantially smooth part spherical surface thereon which forms the outer periphery thereof and substantially coincides with the circle of revolution, so that the pair of first sockets and the first coupling member form a relatively rotatable ball and socket joint in the first position of the bifurcated arm assembly,

the clamping means being operable in the first position of the bifurcated arm assembly to reciprocate the pair of arm sections in relation to one another to a second position of the bifurcated arm assembly in which the first sockets assume a disposition relatively radially within the circle of revolution, and the first coupling member being sufficiently radially compressible at the outer peripheral surface thereof that between the first and second positions of the bifurcated arm assembly, the inner peripheral surfaces of the pair of first sockets can deform the surface of the first coupling member to interlock the bifurcated arm assembly with the first coupling member and vice versa, but

the inner peripheral surfaces of the first sockets also being substantially smooth over sufficient arcuate extent circumferentially of the outer peripheral surface of the first coupling member and the first coupling member being sufficiently resilient at the surface thereof, that when the clamping means are released, the pair of first sockets and the first coupling member reform a relatively rotatable ball and socket joint at the first position of the bifurcated arm assembly, so that the bifurcated arm assembly can be rotated about the first coupling member to vary the angular orientation of the line of juncture with respect to the first coupling member, and

the first coupling member having a reduced diameter neck at a side thereof opposed to the part spherical outer peripheral surface thereof, and the first sockets having

rims formed thereabout in the faces of the respective arm sections, and indentations in the respective rims thereof at the plane of the line of juncture, which together are greater in width than the neck so that the bifurcated arm assembly can be rotated about the locus of the first coupling member to angular orientations in which the line of juncture extends at right angles to the neck of the first coupling member.

36. The mounting device according to claim 35 wherein the respective arm sections have ends adjacent the first sockets, and the first sockets also have indentations in the respective rims thereof at the adjacent ends of the arm sections, which together are greater in width than the neck so that the bifurcated arm assembly can be rotated about the first locus of the first coupling member to angular orientations in which the plane of the line of juncture extends at oblique angles to the first coupling member.

37. A mounting device for interposing along a line of juncture between a pair of relatively movable and relatively stationary objects, to support the relatively movable object on the relatively stationary object at varying angular orientations of the line of juncture with respect to one of the objects, comprising,

means for forming a first coupling member on a first of the objects and a base on a second of the objects at spaced first and second loci, respectively, adjacent opposite ends of the line of juncture,

a split arm assembly comprising a pair of relatively rigid arm sections which are adapted to be operatively juxtaposed to one another along the line of juncture between the spaced first and second loci of the first coupling member and the base, and have faces thereon which are operatively opposed to one another across a plane coincident with the line of juncture,

releasable clamping means for reciprocating the pair of arm sections in relation to one another relatively cross-wise the plane of the line of juncture to form the split arm assembly into a bifurcated arm assembly which has its apex at the second locus of the base and is engaged about the first coupling member,

means forming a pair of operatively opposing first sockets in the faces of the respective arm sections having substantially smooth part spherical surfaces at the inner peripheries thereof which substantially coincide with a circle of revolution that has its center at the first locus

of the first coupling member when the bifurcated arm assembly is engaged in a first position thereof about the first coupling member,

5 the first coupling member having a substantially smooth part spherical surface thereon which forms the outer periphery thereof and substantially coincides with the circle of revolution, so that the pair of first sockets and the first coupling member form a relatively rotatable ball and socket joint in the first position of the bifurcated arm assembly,

10 the clamping means being operable in the first position of the bifurcated arm assembly to reciprocate the pair of arm sections in relation to one another to a second position of the bifurcated arm assembly in which the first sockets assume a disposition relatively radially within the circle of revolution, and the first coupling member being sufficiently radially compressible at the outer peripheral surface thereof that between the first and second positions of the bifurcated arm assembly, the inner peripheral surfaces of the pair of first sockets can deform the surface of the first coupling member to interlock the bifurcated arm assembly with the first coupling member and vice versa, but

15 20 25 30 35 40 the inner peripheral surfaces of the first sockets also being substantially smooth over sufficient arcuate extent circumferentially of the outer peripheral surface of the first coupling member and the first coupling member being sufficiently resilient at the surface thereof, that when the clamping means are released, the pair of first sockets and the first coupling member reform a relatively rotatable ball and socket joint at the first position of the bifurcated arm assembly, so that the bifurcated arm assembly can be rotated about the first coupling member to vary the angular orientation of the line of juncture with respect to the first coupling member, and the first sockets having rims formed thereabout at the faces of the respective arm sections and cruciate grooves at the inner peripheries thereof subdividing the part spherical surfaces thereof into four relatively smaller part spherical surfaces apiece, each of which terminates at the groove in the respective first socket and the rim thereabout.

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